REMARKS

Claims 1, 3-7, 10-21, 23-27, 30-41, 43-47, 50-66 and 68 are presented for

examination. Claim 41 has been amended. Claim 67 has been cancelled without prejudice.

Claims 1, 3-7, 10-20

Examiner rejected claims 1, 3-7, 10-20 under 35 U.S.C. §103(a) as being

unpatentable over U.S. Patent No. 6,154,493 issued to Acharya, et al. in view of U.S.

Patent No. 4,992,887 issued to Aragaki and further in view of U.S. Patent 6,202,060

issued to Tran.

Claim 1 recites:

> In a digital imaging system, a method for distributed digital image
> processing, the method comprising:
> recording luminosity information at a first device, for representing
> an image that has been digitally captured at the first device;
> without performing color interpolation at the first device, generating
> compressed luminosity information at the first device by applying a
> wavelet transform compression to individual bit planes that comprise the
> luminosity information, followed by applying quantization and compression
> to the luminosity information;
> <u>packaging said compressed luminosity information with header
> information identifying the individual bit plane;</u>
> transmitting said compressed luminosity information to a second
> device in a wireless manner using a packet-based communication
> protocol;
> restoring said luminosity information from said compressed
> luminosity information at the second device; and
> converting said luminosity information at the second device into a
> color image, including performing color interpolation at the second device.

(Emphasis Added). Applicant respectfully submits that Acharya, Aragaki and

Tran, either individually or in combination do not teach or suggest header information

identifying the individual bit plane.

The Examiner appears to have agreed with the Applicant's contention that Acharya does not teach or suggest a header identifying the individual bit plane data comprising the compressed luminosity information. (Office Action, page 2).

The Examiner suggests that since Aragaki's file header identifies the reduced and compressed image data and each reduced and compressed image data is represented in serial order of bit planes, Aragaki's file header identifies the individual bit plane. (Office Action, pages 2-3). Applicant respectfully disagrees. Aragaki's file header includes identification data identifying an image file, such as file name, file number, image size and filing date. (Aragaki, Figure 4B). The header also includes a value expressing the size of a reduced-and-compressed image and a value indicating the total amount of the reduced-and-compressed image data. (Aragaki, Figure 4B; column 4, lines 18-22). Thus, Aragaki's file header merely includes identification data and two data values indicating image size and amount of data, and does not include any individual bit plane data.

The Examiner also refers to Aragaki's Figures 10, 17A and 17B as disclosing the limitation that the file header includes individual bit plane data. However, Figures 10, 17A and 17B show image files containing a file header, original image data (compressed or otherwise) and reduced-and-compressed image data in serial order of bit planes. The bit plane data is shown to be included in the reduced-and-compressed image data and not in the file header. Thus, Aragaki does not teach or suggest header information identifying the individual bit plane as recited in claim 1.

Tran discusses a data management system, including a portable computer. Tran does not teach or suggest packaging compressed luminosity information with header information identifying the individual bit plane.

Therefore, claim 1, and claims 3-7, 10-20 which depend on it, are not obvious over Acharya, Aragaki, and Tran.

Claims 21, 23-27, 30-40

Examiner rejected claims 21, 23-27, 30-40 under 35 U.S.C. §103(a) as being unpatentable over Acharya in view of Aragaki and further in view of Tran.

Claim 21 recites:

> In a digital imaging system, a method for deferring digital image processing, the method comprising:
> recording sensor information from an image sensor at a first device, for representing an image that has been recorded at the image sensor of the first device;
> compressing said sensor information prior to color processing by applying a transformation compression to individual bit planes that comprise the sensor information, for generating compressed sensor information at the first device;
> packaging said compressed sensor information with header information identifying the individual bit plane;
> without having performed color processing at the first device, transmitting said compressed sensor information to a second device in a wireless manner using a packet-based communication protocol; and
> decompressing said compressed sensor information at the second device, whereupon said sensor information may thereafter be processed into a color image.

(Emphasis Added). As discussed earlier, none of Acharya, Argaki and Tran teaches or suggests header information identifying the individual bit plane. Therefore, Applicants respectfully submit that claim 21, and claims 23-27, 30-40 that depend on it, are not obvious over the cited combination.

Claims 41, 43-47, 50-68

Examiner rejected claims 41, 43-47, 50-68 under 35 U.S.C. §103(a) as being unpatentable over Acharya, et al. in view of Tran.

Claim 41 recites:

> An imaging system providing deferred image processing, the system comprising:
> an imager having a sensor for recording luminosity information for a visual image captured by the imager, said luminosity information comprising luminosity values recorded by the sensor;
> a compressor module for compressing said luminosity information by <u>applying a transformation compression to all individual bit planes that comprise the luminosity information</u>, for generating compressed luminosity information at the imager without having performed color processing;
> a wireless communication link for transmitting said compressed luminosity information to a target device in a wireless manner using a packet-based communication protocol; and
> a decompression module for decompressing said compressed luminosity information at the target device, whereupon said sensor information may thereafter be processed into a color image.

(Emphasis Added). Acharya and Tran, either individually or in combination, do not teach or suggest applying a transformation compression to all individual bit planes that comprise the luminosity information.

Acharya discloses applying a transformation compression to individual bit planes G1 and G2, but not to individual bit planes R and B. (Acharya, col. 4, lines 28-30; Fig. 2). Rather, the R pixel value is subtracted from its west neighboring G1 pixel value and the difference (R-G1) is passed to compression. (Acharya, col. 4, lines 30-37; Fig. 2). Likewise, the B bit plane is subtracted from its east neighboring G2 associated pixel and the difference (B-G2) passed to compression. (Acharya, col. 4, lines 30-37; Fig. 2). Thus, Acharya does not teach or suggest applying transformation compression to all individual bit planes that comprise the luminosity information.

Tran discusses a data management system that stores data conveniently for a user. Tran does not teach or suggest applying transformation compression to all individual bit planes that comprise the luminosity information.

Therefore, claim 41, and claims 43-47, 50-68, which depend on it, are not obvious over Acharya and Tran.
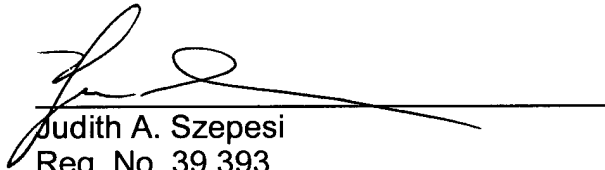
SUMMARY

In view of the foregoing amendments and remarks, Applicants respectfully submit that all pending claims are in condition for allowance. Such allowance is respectfully requested.

If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to contact Judith A. Szepesi at (408) 720-8598.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

Date: 4/25/05

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